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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,818	01/22/2001	David C. Sudolcan	L-0170.23 (D-D)	2824

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EXAMINER

BUTLER, MICHAEL E

ART UNIT	PAPER NUMBER
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3653

MAIL DATE	DELIVERY MODE
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10/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/766,818	Applicant(s) SUDOLCAN ET AL.	
	Examiner MICHAEL E. BUTLER	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim of priority as a divisional application of 0957301 filed 5/19/2000 which claims priority to application 60135076 filed 5/20/99 is acknowledged.

Election/Restriction

2. Applicant's election of invention V without traverse of the restriction requirement of 7/20/2010 is acknowledged and made final. Applicant has cancelled the non-elected claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim(s) 56 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Bethuy et al. 5732563 in view of Rodth 4008832 wherein the former discloses:

(re: cl 56) A frozen cooling fluid monitoring system, comprising: a first probe immersed in a cooling fluid (c2 L 56-c3 L 64)
a second probe immersed in the cooling fluid (c2 L 56-c3 L 64)
a controller coupled with the first probe and the second probe (c2 L 56-c3 L 64)
a controller coupled with the first probe and the second probe, wherein the controller outputs a pulse signal received at the first probe and the second probe, whereby, when both the first probe and the second probe are submerged in frozen cooling fluid,(c2 L 19-45; c2 L 56-c3 L 64) ,
using a pulsed signal to measure cooling fluid temperature wherein the controller outputs a pulse signal received at the first probe and the second probe (c2 L 56-c3 L 64).

Rodth discloses:

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a ground probe immersed in the cooling fluid (c6 L 9-17)
whereby, when both the first probe and the second probe are submerged in frozen cooling fluid, the pulse signal is attenuated to ground via the ground probe indicating to the controller an insufficient amount of frozen cooling fluid (c6 L 9-43)
and, when the first probe is submerged in frozen cooling fluid and the second probe is immersed in unfrozen cooling fluid (c6 L 9-43).

It would have been obvious at the time of the invention for Bethuy et al. to use a submerged ground probe to sense a fault condition of the cooling fluid to shut of the compressor and discontinue cooling and avoid damage to the cooling coils or compressor if the level is too low or fluid bath is too frozen as taught by Rodth.

5. Claim(s) 57-59 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Bethuy et al. 5732563 in view of Rodth 4008832 wherein the former discloses:

{re: cl 57) A method of controlling a refrigeration unit of a beverage dispenser, comprising the steps of: providing a beverage dispenser, comprising: a refrigeration unit including a frozen cooling fluid monitoring system and an electronic control system, comprising: a refrigeration control to permit interfacing with the refrigeration unit (c6 L 30-c7 L 17)
a microcontroller for controlling the refrigeration control, and a program memory including a refrigeration state machine for controlling the microcontroller, wherein the refrigeration state machine includes an off state, an unfrozen probes state, an on state, a frozen probes state (c11 L 35-c12 L 8)
calling the refrigeration state machine to assume control of the microcontroller (c11 L 35-c12 L 8; 218 fig 21)
activating in the on state the refrigeration unit via the refrigeration control (c11 L 35-c12 L 8; 218 fig 21)
deactivating in the off state the refrigeration unit via the refrigeration control (224 fig 21)
changing from the off state to the unfrozen probes state (c12 L 9-c13 L 23)
changing from the on state to the frozen probes state (c12 L 9-c13 L 23)
determining in the frozen probes state via the frozen cooling fluid monitoring system when there is sufficient frozen cooling fluid (c12 L 9-c13 L 23)
changing from the frozen probes state to the off state when the frozen cooling fluid monitoring system registers that there is sufficient frozen cooling fluid (238 fig 22; c12 L 9-c13 L 23); and relinquishing control of the microcontroller when there has been no change of state, immediately upon a change of state, or upon the expiration of a preset time period (c12 L 9-c13 L 23)
{re: cl 58) further comprising the steps of: providing the refrigeration state machine including an off timer state (254 ; c12 L 9-c13 L 23)
activating in the off state an off timer, changing from the off state to the off timer state prior to changing to the unfrozen probes state; determining in the off timer state when the off timer

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expires; and changing from the off timer state to the unfrozen probes state upon the expiration of the off timer (c12 L 9-c13 L 23)

{re: cl 59) further comprising the steps of activating in the on state an on timer (c12 L 9-c13 L 23)

determining in the frozen probes state if the on timer has expired (c12 L 9-c13 L 23)

and changing from the frozen probes state to the off state upon the expiration of the on timer (c12 L 9-c13 L 23).

Rodth discloses:

determining in the unfrozen probes state via the frozen cooling fluid monitoring system when there is insufficient frozen cooling fluid (c6 L 9-43)

changing from the unfrozen probes state to the on state when the frozen cooling fluid monitoring system registers that there is insufficient frozen cooling fluid (c6 L 9-43).

It would have been obvious at the time of the invention for Bethuy et al. to determine if there is insufficient frozen cooling fluid to sense a fault condition of the cooling fluid to shut of the compressor and discontinue cooling and avoid damage to the cooling coils or compressor if the level is too low or fluid bath is too frozen as taught by Rodth.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exmr. Michael E. Butler whose telephone number is (571) 272-6937.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephanos Karmis, can be reached on (571) 272-6744. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. E. B./

Examiner, Art Unit 3653

/Stefano Karmis/
Supervisory Patent Examiner, Art Unit 3653